

CLAIMS

- 1 1. A slot door assembly for a freeze dryer, the assembly comprising a slot
2 door for closing a slot formed in a chamber of the freeze dryer, moving
3 means for moving the door in a direction transverse to the slot to permit
4 access to the chamber, and rotating means for rotating the door as it is
5 moved transverse to the slot.

- 1 2. An assembly according to Claim 1, wherein the rotating means further
2 comprises means for engaging the door as it is moved away from the slot.

- 1 3. An assembly according to Claim 1, wherein the rotating means comprises
2 a cam attached to the door for engaging a curved guide to cause the door
3 to rotate.

- 1 4. An assembly according to Claim 3, wherein the moving means is arranged
2 to move the door from a first closed position to a second open position at
3 which the cam engages the guide.

- 1 5. An assembly according to Claim 4, wherein the slot is exposed by the door
2 when the door is in the second opened position.

- 1 6. An assembly according to Claim 4, further comprising stopping means for
2 stopping the moving means at the second open position.

- 1 7. An assembly according to Claim 4, comprising means for stopping the
2 moving means at a third open position of the door following rotation
3 thereof.

- 1 8. An assembly according to Claim 3, wherein the cam is attached to an arm
2 connected at one end thereof to the door.

- 1 9. An assembly according to Claim 8, wherein the cam comprises a roller
2 rotatably mounted on the arm.
- 1 10. An assembly according to Claim 1, wherein the moving means engages a
2 pivot of the door.
- 1 11. An assembly according to Claim 10, wherein the pivot is connected to the
2 door towards one end thereof so as to cause the other end of the door to
3 swing away from the chamber as the door is moved away from the slot.
- 1 12. An assembly according to Claim 10, wherein the pivot passes through an
2 aperture formed in the moving means.
- 1 13. An assembly according to Claim 10, wherein the moving means is
2 arranged to move the pivot at a constant rate during both rotational and
3 non-rotational movement of the door.
- 1 14. An assembly according to Claim 1, wherein the moving means comprises
2 means for raising and lowering the door.
- 1 15. An assembly according to Claim 1, comprising means for isolating at least
2 part of the moving means from ambient atmosphere.
- 1 16. An assembly according to Claim 1 further including a freeze dryer having a
2 chamber and a slot formed in the chamber for providing access to the
3 chamber.